

(ii) the input port at the left edge of the geometric shape connects to the output port at the top edge of the geometric shape,

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Concl. (iii) the input port at the right edge of the geometric shape connects to the output port at the left edge of the geometric shape, and

(iv) the input port at the top edge of the geometric square connects to the output port at the bottom edge of the geometric shape.

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REMARKS

The Examiner has found the Reissue Declarations previously filed with the application to be defective because they fail to particularly specify the errors in how the errors relied upon arose or occurred. Responsive thereto, Applicant hereby submits his
15 Second Supplemental Declaration in which a detailed chronology of events from conception of the invention through patent issue is set forth. In addition, this chronology is tied to each of the errors in the claims to which the present reissue is directed. The Supplemental Declaration identifies each claim which is sought to
20 be amended, and sets forth both the substance of the claim language sought to be changed and the specifics associated with both the error and the basis for the change.

It cannot be overemphasized that the reissue being sought herein is to correct errors which arose as a result of Applicant prosecuting the application through issue on a pro se basis. Each of the errors which arose and are being sought to be corrected resulted from Applicant's unfamiliarity with the Patent Law. Additional corrections, to claims 22, 42 and 43, are presented as a result of Applicant's further recognition, as set forth in the submitted Declaration, that a typographical error in his original presentation of those claims existed and has now been identified. The departure from the parallel language of other clauses of those claims substantiates and validates the unintentional nature of the original error referred to.

Applicant's Declaration, in addition to discussing each of the original claims in which a substantive error arose, discusses the additional claims submitted by the present reissue application. Summarizing Applicant's Declaration, these claims are submitted to offer alternative embodiments of the invention, such embodiments not having been part of Applicant's original application as a result of his failure, acting pro se, to fully recognize that an Applicant is entitled to claim an invention in a plurality of embodiments, and that, as each claim of the patent is to be reviewed separately, there is a substantial benefit to a patentee in providing such alternative embodiments, particularly in the event a challenge is made to patent validity.

The Examiner has again rejected claims 44 and 45 under 35 U.S.C. 112 second paragraph. The Examiner states that she has diagrammed the claim and cannot link element "b" to any other element within the claim. Applicant respectfully maintains his disagreement with the Examiner. It is to be noted that element "b" of this claim appears in other claims, such as claim 23, which bears parallel language linking the claim to other elements and which has been found acceptable by the Examiner.

Sub-paragraph "b" of claim 44 recites "means for generating 2N operating codes wherein N represents an integer and N is greater than 1." Sub-paragraph "d" defines "N² routing means...each of the routing means being actuatable...to route said operating codes within the device." In addition, sub-paragraph "e" provides "means to generate 2N color codes from said operating codes." Thus, the operating codes which are generated by the means of sub-paragraph "b" are linked, i.e. used, to generate a color code in "e" and are routed within the device in "d".

It is earnestly believed that the submission of the Ghaly Supplemental Declaration fully brings the present reissue application into complete conformance with the statutory requirements. In the event that the Examiner further maintains her rejection of claims 43 and 44 under Section 112, it is respectfully requested that a phone call be directed to the undersigned to give counsel the opportunity either to further discuss with the Examiner

possible modifications of such claims or other methods which could remove the rejection and permit allowance.

Respectfully submitted,

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CERTIFICATE UNDER 37 C.F.R. 1.8(a)

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks Washington, D.C. 20231 on April 3 1997.

Applicant's Attorney: 

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT EXAMINING OPERATION

Applicant	:	NABIL N. GHALY
For	:	ELECTRONIC HAND HELD LOGIC GAME Reissue application of U.S. Patent No. 5,286,037 Issued February 15, 1994
Serial No.	:	08/376,789
Filed	:	January 23, 1995
Attorney Docket	:	0151-125P/JAB

SECOND SUPPLEMENTAL DECLARATION

NABIL N. GHALY declares as follows:

1. I am the named inventor in tile present reissue application, and submit this Supplemental Reissue Declaration to augment my original and supplemental Declarations of January 19, 1995, and September 30, 1996 and to address the issues raised by the Examiner in connection with the Office Action of January 21, 1997. The excesses and insufficiencies of the claims which I seek to modify or add, the errors relied upon, how the errors which I am seeking to correct arose, and the timeline from the moment of conception to the moment of issue, are as follows:

2. The invention of the electronic hand held logic game to which the present application relates was first conceived in November 1990, while I was experimenting with Light Emitting Diodes (LED's). At that time, I constructed a simple electronic device which matched the positions of electrical switches to activate an LED. By January, 1991 I had expanded the device to activate a multi-color LED using two sets of micro-switches.

3. In February, 1991, I conceived the further invention of using a plurality of light emitting means and a plurality of switches to build an electronic hand-held logic game. I started the construction of a 4 by 4, hard wired array of multi-colored indicators to demonstrate my invention and its functionality.

4. Simultaneously with constructing the model, I started to gather information related to filing a patent application to protect my invention. Because I did not have the financial resources to retain a patent attorney in 1991, I proceeded with drafting the patent application acting pro se.

5. In drafting my application, I relied on information provided by the Patent Office and on the format of patents I obtained from the patent library in New York City. None of the information received fully explained the requirements of claim drafting or how to properly draft a claim so that it would provide maximum protection for an invention, information which I only

subsequently obtained knowledge of when I was able to retain counsel in connection with the present reissue.

6. During the period from February 1991, until August 24, 1991, I drafted and finalized my patent application, including 46 claims. These claims were drafted starting on or about August 10, 1991, and were completed on August 23, 1991. Acting pro se, I did not fully understand the significance of the claims or the requirements and nuances of claim drafting and how they actually relate to an invention. I erroneously believed that the independent claims must contain all the desired elements of the invention, including those optional elements which are not necessary for the basic operation of the invention. Further, I incorrectly believed that incorporating greater details into the claims would afford me more protection for my invention. I filed my application on September 3, 1991.

7. On or about April 29, 1992, I received a first communication from the Patent and Trademark Office setting forth the Examiner's comments on my original patent application and requesting a number of modifications to the application.

8. Upon receiving the April 29 communication, I drafted a response to address the issues raised by the Examiner. My main focus at that time was to satisfy the Examiner's objections so that the claims may be allowed. Since the issue of the scope and

coverage of the claims was not raised by the Examiner, I had no reason to question my incorrect understandings of the significance of claim language.

9. On or about July 2, 1992, I finalized my response to the April 29 communication and submitted a 13 page response to the Patent and Trademark Office. In my response I requested the deletion of certain claims, the addition of new claims, and the modification of other claims. None of these changes were relevant to the scope of protection provided by the claims.

10. I received a second communication from the Examiner on or about October 23, 1992. The Examiner made the observation that I was not familiar with patent prosecution procedure, and recommended that I secure the services of a registered patent attorney to help me with my application. The Examiner also made a number of objections and comments relating to my July 2, 1992 response.

11. Following the receipt of the October 23 communication, I attempted to address the objections and comments of the Examiner. However, I did not retain a patent attorney because of my limited financial resources at that time.

12. On or about January 12, 1993, I finalized my response to the October 23 communication and submitted an 8 page response to the Patent & Trademark Office, requesting the deletion of certain claims and the modification of others. Since a large number of claims were allowed by the Examiner, I felt that my claim language must have been acceptable, and did not see any reason to make any modifications to the allowed claims.

13. The next communication from the Examiner was received on or about May 3, 1993, and advised me that my communication of January 12, 1993, failed to comply with the required format for amending claims.

14. On or about May 15, 1993, I responded to the May 3 communication by submitting an 8 page response to the Patent and Trademark Office, using the appropriate bracketing and underlining. Since my main objective at that time was again to address the Examiner's objections and secure an allowance, I did not have any reason to modify or amend any claims other than the ones at issue, or to amend such claims other than to satisfy the Examiner.

15. On or about August 20, 1993, I received a Notice of Allowance and Issue Fee Due. In this communication, the Examiner made a number of requirements and requested me to correct the drawings in accordance with supplied instructions.

16. In response to the August 20 communication, I submitted a letter dated October 18, 1993, responding to all the remaining objections. As before, my focus was only directed to resolve the outstanding issues. I had no reason to modify any of the claims that were previously allowed.

17. Following the payment of the required fees, U.S. Patent No. 5,286,037 was issued on February 15, 1994. As set forth in my original Reissue Declaration, it was only subsequent to patent issue, as a result of further research into the scope and interpretation of patent claims necessitated by my efforts to license and commercialize my invention, did I begin to realize that the claims of that patent were perhaps not properly drafted to adequately protect my invention. I realized I must obtain counsel and did so. As a result, the present reissue application was prepared and filed.

18. In claim 1, the claim recitation of "a housing for the device" has been deleted from the claim. My invention relates to a game system independent of whether the operating elements of the game are incorporated within a housing. When I drafted this claim in August 1991, I was acting pro se and did not fully understand the requirements of claim drafting. I mistakenly thought that, as I had described the game as preferably being a self-contained unit, a "housing" was a necessary part of the invention. Claim 1 further deletes the claim recitation of "means for varying the level of

difficulty of any particular game." At the time of filing my original application (August 1991), I envisioned my invention as having the capability of play at different levels. I thus included this feature as an integral part of the definition of the game apparatus set forth in claim 1. As with the "housing" limitation, I did not recognize at that time that this feature, although contemplated by me as being a desirable part of the game, could properly be excluded from a definition of my "invention." In addition, claim 1 deletes the claim recitation of "sensorially perceptible indicating means responsive to said entry control means for generating a first sensorially perceptible indication corresponding to each activation of the entry control means, a plurality of sensorially perceptible and distinct indications each of which is corresponding to each of a plurality of predetermined colors being displayed at all multi-color light emitting means and a sensorially perceptible indication corresponding to the successful completion of a game." Similar to the limitations of "housing" and "means for varying the level of difficulty of any particular game," I envisioned at the time of filing my original application that the light display would be accompanied by other indications, such as sound. I thus included this feature as an integral part of the definition of the game apparatus set forth in claim 1. As with the aforestated two limitations, I did not recognize at that time that this feature, although contemplated by me as being a desirable part of the game, could properly be excluded from a definition of my "invention." Subsequent

discussions with counsel have clarified my understanding of the purpose, interpretation and scope of claims, and I now understand that the inclusion of such features were unduly limiting, as they are not a necessary requirement or feature of what I consider to be my invention. In addition, amended claim 1 reflects typographical and grammatical changes which do not affect its scope.

19. Claim 15 has been amended to change its dependency from claim 1 to new claim 48. It also changes the phrase "can be of any" to --is a--; and deletes the limitation that "said plurality of playing positions are mapped on the surface of the geometric configuration." The change in dependency from claim 1 to 48 results from the amendment of claim 1, removing therefrom the requirement for "a housing" as discussed in paragraph 18. This limitation has been incorporated into new claim 48, and thus claim 15, which describes the housing as being three dimensional, no longer properly references claim 1. In addition, at the time I drafted the claims and filed the application in August 1991, and further through issue, I believed that the term "can be of any" was proper language to indicate that the specific choice of three dimensional housing was not important. In subsequent discussions with counsel, however, I have come to recognize that more proper claim language of --is a-- conveys the same interpretation and should be used. In the context of my reissue filing, I believe that such correction is proper. Further, the original inclusion

of the requirement of playing position mapping on the housing surface was the result of my belief that since I originally contemplated that the positions were preferably to be set out or "mapped" on the housing surface, it was necessary that such requirement be recited. As a result of my subsequent discussions with counsel, I learned only after patent issue that, as a surface presentation of the playing positions is not critical to the invention (they can be displayed on an interior surface, for example, to be viewed through a window), this limitation should be deleted from the claim.

20. In claim 17, the claim recitations of "programming means to randomly map the actual positions of said entry control means into a respective plurality of apparent entry control means in order to vary the difficulty of the game", "programming means to randomly map the actual positions of said multi-color light emitting means into a respective plurality of apparent multi-color light emitting means in order to further vary the difficulty of the game", "programming means to control the flashing of said multi-color light emitting means," and "programming means to generate a sequence of audio tones to produce said sensorially perceptible indications" have been deleted from the claim. As set forth in Paragraph 6, when I drafted this claim in August 1991, I was not familiar with the requirements of claim drafting. In this claim, which further defines the invention of claim 1 as including a microprocessor to provide necessary operating functions, I

improperly considered that a full range of functions which could, but not necessarily were required to be performed by the microprocessor must be listed to define microprocessor operation. The inclusion of a random map function is not part of the "essence of the invention", nor is light flashing or generation of audio tones. These further limitations, which are set out generally in dependent claims 2-16, constitute an unnecessary limitation to the microprocessor based embodiment of the invention as set forth in independent claim 17.

21. Claim 21 as amended changes the depiction of the routing means from the original "geometric square" language to a --two-dimensional shape having four edges--. This claim provides a limitation to claim 17 by further defining the routing means. At the time the application was prepared (August 1991), I contemplated a square as being the proper designation for the cells of a game board; simply four-sided, as I drew an analogy to a checkerboard. I have now recognized, after subsequent discussions with counsel, that the designation of a "square" is unduly limiting, as it would not, for example, embrace a rectangle or other 4-sided shapes having equivalent attributes for purposes of the invention as defined in this claim.

22. Claim 22 provides a limitation to claim 1, and presents the same modification as in claim 21, namely broadening of the term "geometric square", and is sought on the same basis. In addition, in claim 22 the original claim recitation of "the input port at the top edge of the square connects to the input port at the left edge of the square" set forth in subparagraph a.(iv) is now being changed to --the input port at the top edge of the square connects to the output port at the left edge of the square--. This change is to correct a typographical error that was inadvertently made at the time I drafted the original application in August 1991 and which I now have identified. Clearly, the input ports must be connected to output ports. The other portions of the claim properly reflect the intended relationship.

23. Claim 23 as amended deletes the claim recitation relating to the images represented "wherein each of said plurality of playing positions is indicated to provide" a plurality of display positions." My intention at the time I drafted this claim in August 1991, was to provide, as part of this claim, a brief explanation that the images are pictorially represented and that the playing positions are used to display the images. Since I was acting pro se in August 1991 and did not fully understand the requirements of claim drafting, I mistakenly thought that I must include explanations or clarifications as part of a claim. I now recognize, after discussion with counsel, that adding such explanations and clarifications was unduly limiting and did comport

with the requirements of my invention. Further in claim 23, recitations of "means for varying the lev 1 of difficulty of any particular game" and "sensorially perceptible indicating means responsive to said entry control means for generating a first sensorially perceptible indication corresponding to each activation of the entry control means, a plurality of sensorially perceptible indications each of which is different from said first sensorially perceptible indication and corresponding to each of said plurality of images being displayed at all display positions and a sensorially perceptible indication corresponding to the successful completion of a game," have been deleted from the claim. As discussed in Paragraph 18 with respect to deletion of such language from claim 1, at the time of filing my original application I envisioned my invention as having the capability of play at different levels and that the light display would be accompanied by other indications, such as sound. I thus included these features as an integral part of the definition of the game apparatus set forth in this claim. I did not recognize at that time that these features, although contemplated by me as being desirable parts of the game, could properly be excluded from a definition of my "invention." Subsequent discussions with counsel have clarified my understanding of the purpose, interpretation and scope of claims, and I now understand that the inclusion of such features were unduly limiting, as they are not a necessary requirement or feature of what I consider to be my invention. In addition, amended

claim 23 reflects typographical and grammatical changes which do not affect its scope.

24. Claim 35 as amended deletes the claim recitations of "programming means to randomly map the actual positions of said entry control means into a respective plurality of apparent entry control means in order to vary the difficulty of the game," "programming means to randomly map the actual positions of said display positions into a respective plurality of apparent display positions in order to further vary the difficulty of the game," "programming means to control the flashing of said display positions" and "programming means to generate a sequence of audio tones to produce said sensorially perceptible indications." These elements have been deleted as unduly limiting the scope of this claim, which is a dependent claim emanating from independent claim 23 and whose purpose was to define a microprocessor operating system analogously to that set forth in claim 17. As set forth in Paragraph 20, I improperly thought at the time I drafted the application (August 1991) that all the functions of the microprocessor must be recited. The elements which are sought to be deleted unduly narrow the scope of this claim by reciting microprocessor functions which are not essential to the operation of the game and to the definition of any invention.

25. Claims 42, 43, 45 and 46 as amended each redefine the routing means as a --two-dimensional shape having four sides,-- rather than as a "geometric square". As set forth in Paragraph 21, the term "geometric square" which I regrettably used to characterize a four-sided cell, is unduly limiting, and resulted from my failure to appreciate my ability to claim a more generic definition for this feature in August 1991 when I drafted these claims. In addition, in claims 42 and 43 the claim recitation of "the input port at the top edge of the square connects to the input port at the left edge of the square" set forth in a(iv) is being changed to --the input port at the top edge of the square connects to the output port at the left edge of the square.--" This change is to correct the same typographical description error as appears in claim 22 and discussed in Paragraph 22. These errors were inadvertently made at the time I drafted the original application in August 1991.

26. Claim 44 is an independent claim, and as amended deletes the claim recitations of "means for varying the level of difficulty of any particular game" and "sensorially perceptible indicating means responsive to said entry control means for generating a first sensorially perceptible indication corresponding to each activation of the entry control means, N sensorially perceptible and distinct indications each of which corresponds to each of said N predetermined colors being displayed at all N^2 multi-color light emitting means and a sensorially perceptible indication

corresponding to the successful completion of a game." In August 1991, when I first drafted this claim, it was intended to define the invention in terms of the number of constituent elements required, using "N" to indicate a variable. I did not appreciate at the time of drafting the claim and filing the application that such an independent claim, couched in alternative terms from other independent claims, could be as broad as the other claims. Varying the difficulty of a game is not a necessary requirement of my invention nor is a plurality of signals, for example a signal in addition to a light indication necessary, to indicate the progression or end of a game.

27. The amendment to Claim 18 replaces the term "the current game" with --a current game--. This change is of a formal nature, and I now understand, as a result of discussions with my counsel, that use of "the" requires an antecedent basis which was not clearly present in the claim or the claims from which it depends. At the time I first drafted this claim in August 1991, I did not understand the significance of "the" versus "a" as it relates to claim drafting. No substantive expansion of scope was intended by such change.

28. Proposed new claims 47 through 62 combine subsidiary elements of the game as originally disclosed in manners which cover various combinations thereof. At the time of my original pro se filing in August 1991, I failed to adequately perceive or recognize

the requirements of the Patent Law regarding infringement of a patent, and the vital importance of claim language thereto, and thus failed to consider various elements of the invention and how they could be combined in manners which would duplicate the invention. These claims have been prepared to address such issues. I also did not fully appreciate that the validity of each claim is to be considered separately. I thus did not adequately consider how claims of varying scope, presenting various elements, could provide greater protection for my invention. Upon consideration and explanation of these issues by counsel, these new claims were prepared.

29. Claim 47 provides the additional limitation to claim 1 that means for varying the level of difficulty of the game are included. As discussed in Paragraph 18, this limitation was originally included in claim 1.

30. Claim 48 provides the limitation of a housing which, as previously discussed, is deemed not to be an indispensable element of the invention and game, and thus was deleted from independent claim 1.

31. Claim 49 adds the limitation to claim 1 of sensorial perceptible indicating means, such as a sound generator, in addition to the light indicators. As discussed in Paragraph 18, this structure was originally included in claim 1.

32. Claim 50 amends claim 17, and provides in the alternative, as functions of the microprocessor, the various programming means recited therein, rather than requiring them to be in combination. As discussed in Paragraph 20, these functions were originally included in claim 17.

33. Claim 51 amends independent claim 17 by providing a light-flashing function, while claim 52 provides for the use of audio tones. The combination of claims 51 and 52 allow these functions to be provided in the alternative. As discussed in Paragraph 20, these functions were originally included in claim 17.

34. Claims 53 and 54 again provide for "means for varying the level of difficulty of the game" and "sensorial perceptible indicating means" similar to those recited in claims 47 and 49, being dependent on independent claim 23 rather than claim 1. Once again, these claims allow the further functional features to be provided in the alternative. As discussed in Paragraph 23, these functions were originally included in claim 23.

35. Claims 55 through 57 add similar functions, in the alternative, with respect to independent claim 35, while claims 58 and 59 provide similar limitations to independent claim 44. As

discussed in Paragraphs 24 & 26, these additional functions were originally included in claims 35 and 44.


36. Claims 60, 61 and 62 provide, for the invention as defined in claims 23, 41 and 51 respectively, a recitation that the routing means is depicted as a two dimensional geometric shape with the recitation of specifics of the operation of the routing means. These claims further define the invention as set forth in the claims from which they depend in a manner parallel to that presented in other dependent claims as previously defined in claims associated with independent claims which were not subject to such previous limitations.

37. As set forth in my earlier Declarations, all of the foregoing defects or errors became apparent to me only after my patent was issued and reviewed by me, and later by counsel in connection with my effort to commercialize the invention. Working with counsel the errors were identified and the present reissue application prepared to correct them.

I hereby declare that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with knowledge that willful, false statements and the like so made are punishable by fine, or imprisonment, or both, under section

1001 of Title 18 of the United States Code, and that such willful, false statements may jeopardize the validity of this application or any patent issuing therefrom.

Executed on April 2, 1997



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